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**Before the**  
**SUBCOMMITTEE ON COMMUNICATIONS**  
**COMMITTEE ON COMMERCE, SCIENCE, AND**  
**TRANSPORTATION**  
**UNITED STATES SENATE**

**On**  
**S. 2454, A BILL TO AMEND THE COMMUNICATIONS ACT OF**  
**1934 TO AUTHORIZE LOW-POWER TELEVISION STATIONS TO**  
**PROVIDE DIGITAL DATA SERVICES TO SUBSCRIBERS**

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## **INTRODUCTION**

Good morning, Mr. Chairman, and Members of the Subcommittee. My name is Roy Stewart, Chief, Mass Media Bureau, Federal Communications Commission (FCC). I am accompanied by Dale Hatfield, Chief of the FCC's Office of Engineering and Technology. We welcome this opportunity to discuss the importance of broadband deployment in rural areas. There is no question that this is an important issue that needs to be addressed. At the Commission, we have made it a top priority.

The Internet and the capability to transmit large quantities of data at very high speeds are transforming the telecommunications industry, and providing tremendous benefits to citizens around the world. We must make sure that the benefits of the communications revolution are experienced by all Americans. Those communities without access to broadband will be placed at enormous risk in the next century.

Directly or indirectly, through our information and telecommunications sectors, the Internet is linked to one-third of our country's real economic growth. But for the Internet economy to develop to its full potential in our country, there must be an available, affordable broadband telecommunications infrastructure throughout the country. To bring everyone into the Information Age, we must make sure that rural America reaps the benefits of broadband. As Chairman Burns knows from his participation in our rural field hearings, the Commission has been actively working with consumers, industry, the states and other parts of the federal government to ensure and facilitate broadband deployment to every community. We have embarked upon a series of outreach hearings so that consumers and small businesses can tell us in their own

words about the broadband challenge. The Commission adopted an order that is already providing us firm data on the status of infrastructure deployment, so we do not have to rely on anecdotal or incomplete information when examining the issue. The Commission has asked a Federal-State Joint Board to review services supported by universal service, and to help the FCC keep up with the changes in telecommunications. The FCC and state regulators are also creating a national database to store, monitor, and disseminate information on broadband deployment. This database will be available on the Internet and is intended to be a clearinghouse for local communities to share information about their broadband deployment projects. An interactive survey will allow local governments, private industry and schools to provide broadband information. The survey will be accessible at [www.nrri.ohio-state.edu/broadbandsurvey.php](http://www.nrri.ohio-state.edu/broadbandsurvey.php). The database will be available at [www.nrri.ohio-state.edu/broadbandquery.php](http://www.nrri.ohio-state.edu/broadbandquery.php). Finally, the Commission is making spectrum available for wireless broadband and carving out a deregulatory zone for companies that want to deploy broadband in under-served markets.

While we commend Chairman Burns for attempting to address the issue of broadband deployment in rural America, we have serious concerns about the provisions in S.2454 which would require the FCC to protect from interference low-power television broadcasting stations providing digital data services. Specifically, we are concerned that, as introduced, the bill does not adequately protect the rollout of digital television service (DTV). In addition, the legislation as introduced would permit primary low-power television services to operate on spectrum that has been reclaimed and reallocated for new services, including public safety and commercial wireless broadband. This could adversely impact the ability of the Commission to auction this spectrum as mandated by

the Congress and thus have an equally adverse budgetary impact. The legislation could also hinder the expansion of DTV services provided by TV translators to rural areas, particularly in the western mountainous states.

## **SPECTRUM MANAGEMENT**

Spectrum is a valuable and finite public resource that must be allocated and assigned in a manner that will provide the greatest possible benefit to the American public. The FCC's Office of Engineering and Technology is responsible for advising the Commission in carrying out its responsibilities for allocating the spectrum in the public interest. In order to do this, we must help to define policies that maximize the efficient use of the spectrum and promote the introduction of new services and technologies.

Over time, technological advances, growth in user demand, and the finite nature of spectrum have made our spectrum management responsibilities increasingly complex. To address the continuing growth of demand for radio services, we have focused our approach to spectrum management on allowing spectrum markets to make more efficient use of frequency bands through new technologies and on increasing the amount of spectrum available for use. In addition, we have sought to encourage the development and deployment of new, more spectrum-efficient technologies that will increase the amount of information that can be transmitted in a given amount of bandwidth and allow greater use of the spectrum occupied by existing services wherever possible.

## **DIGITAL TELEVISION TRANSITION**

The efficiency of the digital television transmission standard has made it possible to reduce the amount of spectrum for television broadcasting while at the same time improving the quality of the service. The Commission provided a second channel for each existing full-service station to use for DTV service in making the transition from the existing analog, National Television System Committee (NTSC) TV technology to the new DTV technology. These second channels were provided to broadcasters on a temporary basis until the end of the DTV transition, which is currently scheduled for December 31, 2006. In developing the DTV channels, the Commission maintained the secondary status of TV translators and LPTV stations. The Commission also provided for recovery of a portion of the existing TV spectrum so that it can be reallocated to new uses. Specifically, the Commission provided for immediate recovery of channels 60-69 stations and for recovery of channels 52-59 at the end of the DTV transition.

## **THE LOW-POWER TELEVISION SERVICE**

Low-power television (LPTV) stations are broadcast stations that operate on the standard VHF and UHF television channels, but at much lower power levels than conventional TV stations. LPTV stations may retransmit programming received from other sources or originate their own television programming. LPTV stations may also transmit subscription television broadcast programs intended to be received by the public for a fee. LPTV stations are secondary to full-power TV stations, which means that they

may not interfere with, and must accept interference from, conventional “primary” TV stations.

The FCC created the LPTV Service in 1982 as a secondary service. The FCC believed that LPTV stations could increase television programming diversity in both urban and rural areas and that these stations would be particularly well suited to provide local programming.

The LPTV Service also includes television translator stations. There are more than 4,500 licensed television translator stations, the majority of which operate in the western mountainous states. Many rural communities in these areas depend on translators as the only means of obtaining free television programming.

Television translators rebroadcast the programs of full-service TV stations to geographic areas where full-service stations cannot be directly received. A translator generally receives the signal of a television station on one channel, amplifies it, and retransmits the signal on another channel. Translator stations may be converted to LPTV status at any time upon notification to the Commission.

## **THE LPTV SERVICE TODAY**

There are currently more than 2,100 licensed LPTV stations. These stations operate in more than 1,000 communities of all sizes and in all 50 states. Station operators include such diverse entities as schools, colleges, churches, local governments, community groups and radio and TV broadcasters. The service has also provided first-time ownership opportunities to minority groups, women and a variety of small

businesses. LPTV stations can be operated in a wide variety of ways. FCC rules do not require minimum hours of station operation or minimum amounts of locally produced programming. Some stations primarily retransmit programming imported from full-service television stations, satellites or other sources. Many others transmit locally oriented programming, including “niche” programming tailored to audiences with specific interests, as well as local news, weather, community affairs, local elections and events such as high school football games.

## **DIGITAL TELEVISION IMPACT ON LPTV**

Despite their secondary status, until the arrival of the digital television era, primary television stations had displaced few stations in the LPTV service. Where interference from LPTV to full power stations occurred, the LPTV affected stations were usually able to find a suitable replacement channel on which to operate using an FCC “displacement relief” provision. That provision permits stations with an interference conflict to seek replacement channels at any time on a noncompetitive, “first-come” basis.

The prospects for LPTV service disruption are increased by the emergence of DTV service. The FCC concluded in its DTV proceeding that there was insufficient spectrum to protect the existing services of secondary LPTV and translator stations and to provide a second channel for DTV service to more than 1,600 full-service stations during the transition to DTV. It also concluded that LPTV and translator stations would remain secondary, and therefore, must not interfere with DTV service. The Commission, however, provided several measures designed to mitigate the impact of the DTV

transition on the LPTV service. The channel displacement relief provisions were extended to stations potentially affected by DTV and operating on channels 52-69. Applications for replacement channels were accorded the highest priority among applications in the LPTV service.

In addition, several of the interference protection provisions have been eliminated or relaxed. LPTV and translator stations were afforded additional operating flexibility and permitted to negotiate interference agreements with other stations in the LPTV service and the Commission also expanded its policy of granting waivers of the interference rules based on consideration of terrain shielding. Further, the Commission has increased LPTV maximum power limits primarily to enable LPTV and translator stations to operate on channels adjacent to those of full power stations operating at the same location. Finally, the Commission modified more than 60 DTV allotments to eliminate conflicts with one or more LPTV stations.

#### **S. 2454**

S.2454, as introduced, seeks to create opportunities for LPTV stations to provide a variety of digital data services to subscribers, including one-way and two-way high speed Internet access, as well as to change the secondary status of those stations. As noted in our introduction, facilitating access to broadband technology is an important goal of Chairman Kennard and his fellow Commissioners, and the Commission has made substantial efforts in this regard. For instance, the Mass Media Bureau recently completed a comprehensive proceeding to enable two-way cellularized video and data



communications in the Multipoint Distribution and Instructional Fixed Television Services. Our DTV rules also provide for the provision of data services on a supplementary or ancillary basis. Full-service television stations must provide a free video broadcast service of comparable quality to today's analog television, but may use their excess channel capacity for a variety of data services. The Commission has also created the Local Multipoint Distribution Service as another means of gaining access to broadband technology and has auctioned spectrum for such uses in the 24 GHz and 39 GHz frequency bands. Perhaps of greatest significance, the Congressional provisions for the reallocation and auction of approximately 20 percent of the television broadcast spectrum should create very substantial opportunities for new broadband services throughout the country.

We are greatly concerned about the implications of S.2454, as introduced, particularly its potential to hinder or even cripple the roll out of DTV service, eliminate spectrum for new broadband services, and potentially decrease the availability of free, over-the-air television in rural America.

As introduced, S.2454 provides that all LPTV stations may use their authorized broadcast channels to deliver data services to the public. The bill does not specify the amount of such service, nor does it appear to require LPTV stations to provide any free broadcast service. Presumably, all LPTV stations could provide Internet access either on a full-time basis, or to a very minimal extent. The Commission could not authorize new or modified broadcast facilities predicted to interfere with such LPTV stations. More than 2,100 LPTV stations are licensed to operate throughout the United States. Additionally, there are more than 4,500 licensed television translator stations that may

convert their stations to LPTV status by a simple notification to the Commission. Thus, it is possible that thousands of stations could seek to qualify under the interference protections afforded by S.2454. Significantly, the bill does not limit such protection to existing LPTV stations. The Mass Media Bureau recently announced an LPTV application filing window that will open later this summer. The window will geographically restrict where new LPTV and TV translator stations can be located. Its primary intent is to provide opportunities for translators to deliver additional TV programming services to rural communities, such as the new broadcast networks and the Fox network in some communities. This window could significantly increase the number of LPTV and potential LPTV stations in rural areas that could qualify for full interference protection under the LPTV datacasting provisions of S.2454.

The FCC concluded in its DTV proceeding that there was insufficient spectrum to protect the existing services of all secondary LPTV and translator stations and to provide a second channel for DTV service to more than 1,600 full-service stations. It also concluded that LPTV and translator stations must not interfere with DTV service and must accept interference from existing and future DTV stations. We believe it is well established that there is insufficient broadcast spectrum to accommodate thousands of LPTV stations with full interference protection without substantially impacting the transition to digital television, particularly in the rural areas. This is evidenced by the more than 1,800 channel displacement applications we have received from LPTV and translator licensees who believe they cannot continue to operate on their authorized channels, mainly due to conflicts with DTV service or channel allotments.

## **THE COMMUNITY BROADCASTERS PROTECTION ACT OF 1999**

Congress recognized the spectrum impact and the paramount importance of protecting the digital transition when it enacted legislation to create the Class A LPTV service. On November 29, 1999, the President signed into law the “Community Broadcasters Protection Act of 1999” (CBPA). This new law created a Class A TV service which provides certain interference protections, but not full protection, for those LPTV stations that qualify by airing locally-produced programming in their communities and that will operate in the manner of full-service television stations. Noting that not all LPTV stations could be guaranteed a certain future, the CBPA limited eligibility for Class A status to a very specific group of LPTV stations: those that were broadcasting television programming produced in their communities. The Mass Media Bureau recently issued a public notice granting Class A eligibility to more than 900 LPTV stations that certified compliance with the qualification thresholds of the CBPA. The Mass Media Bureau is also now accepting applications for these new Class A LPTV licenses. It is yet unclear, however, how many of these stations can meet the interference protection requirements of the CBPA to obtain Class A licenses. Further, the proposed legislation could permit stations that received their Class A status because of their commitment to local television programming to abandon that programming.

In view of the complexities of the DTV rollout, Congress also found it necessary to limit the interference protections afforded to Class A stations by DTV stations. For instance, Congress stipulated a higher priority for certain application proposals to maximize (or enlarge) the service areas of DTV stations and provided DTV broadcasters

the flexibility to make necessary adjustments to their facilities, including channel changes, without regard to protection of Class A LPTV stations. The Commission Report and Order implementing the CBPA further provided that Class A stations must protect and would not be protected from DTV operations on a broadcaster's assigned, in-core channel at the end of the transition period.

S.2454, as introduced, provides none of these necessary safeguards, nor is it even clear that the Commission could authorize a station on a broadcaster's allotted DTV channel under this bill if the proposed facilities would be predicted to interfere with a protected LPTV station. Nor does the bill clearly define the requirements of LPTV stations to protect full-service television stations and station proposals, for example, DTV allotments, authorized service, and pending requests for DTV channel changes.

Even with the inclusion of the safeguards that were included in the Class A legislation, we believe that because of the much larger number of LPTV stations that would be protected, the current bill could affect the provision of television service, both analog and digital, in rural areas. If broadcasters convert their translators to LPTV service and then opt for protection under this legislation, many rural communities will lose free, over-the-air television services. Likewise, it is expected that DTV service will be delivered to many communities by television translator stations. Translator licensees will need additional channels for this purpose. We are concerned that entities seeking to provide LPTV data service will file applications in the forthcoming filing window and operate new LPTV stations that could preclude translator operators from obtaining channels for the rebroadcast of DTV stations.

The Commission is committed to ensuring that spectrum use is flexible and put to the maximum possible use. Accordingly, when the public interest demonstrates that testing new technology and sharing arrangements are warranted, the Commission will seek to accommodate such situations. We have granted experimental licenses to stations interested in providing data services on a secondary basis. For example, in Houston, Texas, the Commission authorized as an experiment the testing of a digitally based interactive broadcast service using low-power television. Following a year and one-half period during which no interference to other broadcast services was encountered, we authorized the station to provide a one-way Internet service to limited subscribers on a secondary basis. In Alaska, we similarly authorized on a secondary basis the provision of Internet service to secondary schools. These types of requests must be reviewed on a case-by-case basis.

Having to provide primary, interference-protected status to thousands of existing and potential LPTV stations would not be possible under the current proposed spectrum allocation for digital television. There simply is not enough room. The Commission would be forced to reduce the amount of spectrum being reclaimed for new services. This spectrum, the first segment of which is scheduled for auction in September of this year, has been allocated for advanced wireless services. FCC Chairman Kennard has repeatedly noted that this spectrum offers the potential for the third residential, two-way broadband pipe, a wireless pipe that will enable affordable broadband access, including to rural areas.

## **CONCLUSION**

In conclusion, we agree with the Committee's objective to facilitate broadband deployment in rural America. However, the approach taken in S.2454, as introduced, could undermine the digital transition, eliminate spectrum for new broadband services, and potentially decrease the availability of free, over-the-air television in rural America. Nonetheless, we look forward to working with Chairman Burns, his staff and the Congress to address the critical issue of broadband deployment in rural areas. This concludes our testimony and we would be pleased now to answer your questions.